



BREXIT... A LIFETIME OF PURGATORY FOR THE UK'S ENVIRONMENTAL LAWS - OR IS THERE A STAIRWAY TO HEAVEN?

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Abstract

This paper considers the prospect that the United Kingdom's decision to withdraw from the European Union may have a detrimental effect on its environmental protections. Brexit may provide the opportunity to pursue a more environmentally focused agenda, but it is argued that the UK's plan to transpose EU legislation underestimates the complexity of the task and that the UK lacks the resources to replicate the system it currently enjoys. On this basis it is thought that a reordering of environmental law is more likely than a radical re writing of it.

Keywords: environmental law, environmental protection, Brexit

Introduction

The UK is a sovereign country in Western Europe situated off the north-western coast of the European mainland and surrounded by the Atlantic Ocean, the North Sea, English Channel and the Celtic Sea, giving the UK the twelfth longest coastline in the world.² Whilst the UK is not considered a global biodiversity hotspot, approximately 28% of the UK's land and 17% of its territorial waters are designated important protected areas.³ The UK is a Member State of the EU which is a unique economic and political union between 28 European countries.⁴ What began as an economic union has evolved into an organization spanning policy areas from climate, environment and health to justice and migration.⁵ In 2016, the UK voted to leave the EU which is scheduled to take effect in March 2019,⁶ a scenario where no precedent exists.

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² Laycock, H., et al., 'Evaluating the cost effectiveness of conservation: The UK Biodiversity Action Plan', (2009) *Biological Conservation* 142 (12) 3120-127.

³ Rodriguez, A., et al., 'Status of the marine protected area network across the English Channel (La Manche): Cross-country similarities and differences in MPA designation, management and monitoring', (2015) *Marine Policy* 51 536-546.

⁴ Geddes, A., *Britain and the European Union*, (2013) 112.

⁵ Reader, K., 'Brexit', (2016) *French Studies Bulletin* 37 (140) 61.

⁶ Prime Minister's Office, 10 Downing Street, and Department for Exiting the European Union, *Joint Report from The Negotiations of The European Union and The United Kingdom Government on*

No other country in the history of the EU has sought to recast their relationship in such a manner. The environment did not feature highly on either campaign sides prior to Brexit. This paper considers two prominent arguments. First, that Brexit presents an opportunity to depart from the 'business as usual' approach and gives the UK the ability to pursue new, innovative and exciting approaches to protecting its environment.⁷ Secondly, the counter argument that Brexit will have a negative impact on the environment and it 'rips the heart out of environment protections'.⁸

1 Socio-Political Prelude

Coinciding with Britain re-establishing itself in the world following the decolonisation of its empire, its environmental movement began to gain momentum. Influenced by domestic and international environmental concerns, it is widely accepted that modern British environmentalism began at the beginning of the 1970s,⁹ a mass movement with the desire to defend the natural environment from the excesses of human action began to form.¹⁰ Influenced by a number of high-profile incidents, including the 1952 'Great Smog of London',¹¹ the 1957 Windscale nuclear fire,¹² and pertinent to this paper; in 1967 the super tanker SS Torrey Canyon that ran aground on a reef off the south-west coast of the UK, spilling an estimated 25-36 gallons of crude oil. Approximately 50 miles of French and 120 miles of Cornish coast were contaminated and some 15,000 sea birds killed as well as significant numbers of marine organisms. Additionally, the heavy use of detergents to break up the slick caused significant damage. At the time, this was the world's worst oil spill and remains so in UK history.¹³ The desire to clean up the side effects of industrialisation has now widened to a concern for the survival of the planet and the need for an alternative social and economic model that dominates much of the world. In the UK, the elite environmental establishment of the nineteenth century has progressed into massive memberships of environmentalist

Progress During Phase 1 of the Negotiations Under Article 50 TEU on the United Kingdom's Orderly Withdrawal From The European Union, 8 December 2017.

⁷ DEFRA, Speech given by the Environment Secretary on 15 March 2018, Green Brexit: a new era for farming, fishing and the environment. Last accessed on 3 April 2018. Transcript available here: <https://www.gov.uk/government/speeches/green-brex-it-a-new-era-for-farming-fishing-and-the-environment>

⁸ Laville, S., 'UK withdrawal bill 'rips the heart out of environmental law', say campaigners', *The Guardian* 17 October 2017.

⁹ Fowler, C., 'Environmentalism and Nationalism in the UK', (2005) *Environmental Politics* 14 (4) 541.

¹⁰ Prendiville, B., 'British Environmentalism: A Party in Movement?', (2014) *Revenue Lisa e Journal* 12 (8) 85-102.

¹¹ Davis, D., 'The Great Smog', (2002) 52 (12) *History Journal* 2-3.

¹² Schonland, B., 'Windscale accident: 24-years perspective', (1981) 120 10 *Science News* at 152

¹³ Wells, P., 'The iconic Torrey Canyon oil spill of 1967 – Marking its legacy', (2017) 115 *Marine Pollution Bulletin* 1-2.

organisations including the recent electoral success of the Green Party, the UK's only major political party.¹⁴

Brexit is a portmanteau of "British" and "exit" and refers to the UK's withdrawal from the EU. The Environment features very little in the Brexit debate, its omission is suspicious as prior to the UK joining the EEC, the UK was widely referred to as the "*dirty man of Europe*", with reference to the quality of its natural environment.¹⁵ When the UK joined it was the only country in Western Europe that failed to control pollution from cars, power stations and farming, it also tried to undermine EU pesticide controls and evade nitrate regulations and bathing water directives.¹⁶ Its environmental standards have since improved. In the 1980s the quality of the seawater was so poor that the Government claimed that some the UK's most popular beaches, such as Brighton and Blackpool, were not used for bathing in order to avoid dealing with the pollution.¹⁷ The resulting judgement in *Commission v United Kingdom*¹⁸ found that the UK had failed to take all practicable steps to comply with its obligations under Article 4(1) of the Bathing Water Directive¹⁹ and Articles 5 and 189 of the EEC Treaty. Subsequently, £30 billion was invested by water and waste companies over 20 years in addition to enacting EU directives. The EU has been a significant source of the UK's environmental laws influencing its environmental policy and direction as set out in the founding treaties. The Single European Act 1986²⁰ first introduced reference to the environment, further amendments were made under the Amsterdam Treaty 1997²¹ which promoted sustainable development and environmental integration. Under the Lisbon Treaty 2007,²² the European Union and European Community merged into a single European Union establishing the Treaty on the Functioning of the European Union (TFEU).²³

By the early 1970s, it was accepted internationally that there was a need for some form of policy on the protection of the environment. There were two prominent reasons for this conclusion: firstly, the interrelationship between economic growth and environmental

¹⁴ Prendiville, 'British Environmentalism: A Party in Movement?'

¹⁵ Rose, C., *The Dirty Man of Europe: The great British pollution scandal*, (1990) pp300

¹⁶ Vidal, J., 'Brexit would return Brian to being "dirty man of Europe"', *The Guardian* 3 February 2016.

¹⁷ Ibid.

¹⁸ [1993] C-56/90 ECJ 24 AUG

¹⁹ Directive 76/160 EEC Bathing Water Quality (1975).

²⁰ (1986) OJ L 169 of 29.6.1987.

²¹ European Union: *Treaty of Amsterdam Amending the Treaty on European Union, The Treaties Establishing the European Communities and Related Acts*, 10 November 1997.

²² European Union: *Treaty of Lisbon Amending the Treaty on European Union and the Treaty Establishing the European Community*, 13 December 2007.

²³ European Union, *The Treaty on the Functioning of the European Union*, 26 October 2012 C326.

degradation, and secondly, the environment was emerging as a significant political issue.²⁴ In 1972, the EU Commission formulated the first action plan on the environment.²⁵ Subsequently, this plan has been revised and now the EU has a Sustainable Development Strategy with over 200 pieces of environmental legislation.²⁶ The strategy prioritises the integration of environmental protection requirements into other areas of EU policy, promoting environmental protection alongside economic growth and social cohesions as the key aims of the EU.²⁷

There are four ways in which the EU shapes UK environmental law. Firstly, some items of EU legislation are directly enforceable in Member States without any further implementation. Secondly, other items of legislation are addressed to Member States and require change in domestic legislation. This is often the case with environmental legislation and the use of Directives. In these circumstances UK and EU law often differ because EU legislation consists of aims, goals and procedural framework rather than precise legal rules like domestic legislation. Third, the general policies that underpin the EU help to influence its Members States' attitudes towards policy making decisions. Finally, the economic policies of the EU affect the direction of both EU and domestic environmental law. Arguably, that environmental protection cannot be isolated from economic policy.²⁸

2 EU Bodies and Enforceability

The EU has four well-established institutions; the Commission, the Council of the EU, the Parliament and the Court of Justice (CJEU). Each has its own powers and duties as set out in the TFEU and an obligation to further the aims of the EU. The Commission and the CJEU play particularly significant roles in the making and enforcement of EU law. The Commission is the executive arm and is responsible for implementing and enforcing EU law,²⁹ drawing up environmental action programmes and drafts proposing EU legislation.³⁰ It has been described as having an ambivalent nature but academics argue this must be appreciated,³¹ it

²⁴ Skjaerseth, J., 'Understanding the effectiveness of EU environment policy: how can regime analysis contribute? (European Union), (2002) *Environmental Politics* 11 (3) 99.

²⁵ European Commission, European Union, 1st Environmental Action Programme 1973-1976, [1973] OJ C 112,20.12.73.

²⁶ Communication from the Commission A Sustainable Europe for a Better World: A European Union Strategy for Sustainable Development (Commission's proposal to the Gothenburg European Council), COM/2001/0264 Final.

²⁷ Ibid.

²⁸ Hepburn, C., 'Environmental policy, government, and the market', (2010) *Oxford Review of Economic Policy* 26 (2) 117-136.

²⁹ Muller, H., 'Between Potential, Performance and Prospect: Revisiting the Political Leadership of the EU Commission President' (2016) *Politics and Governance* 4 (2) 68-79.

³⁰ Hustedt, T., and Seyfried, M., 'Inside the EU Commission: Evidence on the Perceived Relevance of the Secretariat General in Climate Policy Making', (2018) *Journal of Common Market Studies* 56 (2) 368-384.

³¹ Muller, Between Potential, Performance and Prospect' 68-79.

is often the driving force behind new environmental policies and is responsible for enforcing the economic and other aims of the EU as demonstrated in the Danish bottles case.³²

The CJEU consists of judges appointed by common agreement of the Member States. It has supreme authority on matters of EU law meaning it has ultimate power to interpret the treaties and EU legislation. If required it can review the legitimacy of the actions of the other institutions, provide answers on matters of EU law to Member States' courts, and declare whether Member States are implementing EU law poorly. Larion considers the CJEU is a positive force when it comes to environmental law, arguing that it interprets EU environmental Directives purposively, as much according to the spirit of their environmental objectives as to the letter of the law.³³ Critics note that whilst the EU has been taking a more proactive role in enforcing its environmental law recently, there is strong evidence of a continuing culture within the higher tiers of the Commission of hostility towards what is viewed as overzealous enforcement.³⁴ The CJEU remains the final decision maker as to whether or not there has been compliance and if the Member State has breached EU Law though states normally comply as a matter of political necessity. Article 260 provides the Commission with the power to impose financial penalties on Member States if it considers they have not complied with a judgement of the court. Proponents argue that the likelihood of proceedings under Article 260 helps to encourage national decision makers and their treasuries to comply with decisions.³⁵

3 EU Environment Law

It is difficult to deny that the EU has not had a significant impact on the UK's environmental policy and law. EU environmental law is given effect in UK domestic law by the European Communities Act 1972. Section 2 requires that Environmental Directives must be transposed into domestic legislation which is normally achieved through regulations and sometimes by Acts of Parliament.³⁶ Occasionally, directives have resulted in more stringent domestic legislation as seen in the standards adopted with air quality, emissions from cars and bathing waters.³⁷ Lee warns against holding a nostalgic view of EU environmental law as it may prove unhelpful when moving forward with the task of ordering environmental law post-Brexit.³⁸ It

³² Case 302/86 *Commission of the European Communities v Kingdom of Denmark* [1988] ECLI1988:421.

³³ Larion, I., 'A brief analysis on Brexit's consequences on the CJEU's jurisdiction', (2017) *Challenges of the Knowledge Society* 7 476-481.

³⁴ Anderson, S., *The Enforcement of EU Law the Role of The European Commission*, (2013) 240.

³⁵ *Ibid.*

³⁶ Bell, S., et al., *Environmental Law*, (2017) 178.

³⁷ *Ibid.*

³⁸ Lee, R., 'Always Keep a Hold of Nurse: British Environmental Law and Exit from the European Union', (2017) *Journal of Environmental Law* 29 (1) 155-164.

should not be thought of as an ideal body of law for environmental protection because the environmental laws are as much driven by economic as by environmentalist agendas.³⁹ The majority of EU environmental laws were shaped following the drive for the single market, which under the Single European Act 1987 introduced a new environmental title and more formal legislative competence on environmental matters. The EU Commission has confirmed that the effective implementation of EU environmental law helps to “create a level playing field”.⁴⁰ Recognising the market-based origins of the EU environmental regulations is not to deny the underpinning benefits of integration of environmental policy, especially when faced with transboundary and global environmental impacts.

Much of the momentum behind environmental policy was support for common standards in a functioning single market where goods and services are traded freely including nationally based environmental standards that if set too low or too high,⁴¹ may produce market fragmentation or trade barriers.⁴² Academics argue that the market orientated bases for much EU environmental law helps in part to explain certain environmental preferences such as why EU environmental law has concerned itself with elaborate definitions of waste seeking to differentiate waste materials from goods as the latter should be able to cross border freely whereas the former, under the proximity principle, should not.⁴³ This helps to explain the presence of many EU environmental targets such as the diversification away from landfill or for renewables in the energy mix. Bell argues that to an extent landfilling of waste represents a low-cost management option or assists a competitive market if the pace of regulated change is approximated across all Member States.⁴⁴ Such outcomes may achieve desirable ends, such as the utilization of secondary materials or the reduction in greenhouse gas emissions, but these environmental goals may be hindered by the complexities of harmonisation.⁴⁵

Academics suggest that the economic liberalisation philosophy that underpins the single market can also be seen in The Europe 2020 strategy which sets goals for greenhouse gas reductions, energy efficiency gains and renewables in the energy mix. Its key priority is to

³⁹ Ibid.

⁴⁰ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, ‘Delivering the Benefits of EU Environmental Policies Through a Regular Environmental Implementation Review’ COM (2016) 0316 final 7

⁴¹ Case 302/86 *Commission of the European Union v Kingdom of Denmark* [1988] ECR 1 4607

⁴² Institute for European Environmental Policy, *Report of the Influence of EU Policies on the Environment* (2013).

⁴³ Case C2/90 *Commission of the European Union v Kingdom of Belgium* [1993] CMLR 465.

⁴⁴ Bell, *Environmental Law*, 614.

⁴⁵ Scotford, E., ‘Trash or Treasure: Policy Tensions in EC Waste Regulations’, (2007) *Journal of Environmental Law* 19 (3) 367-388.

deliver growth.⁴⁶ This carbon economy approach is indicative of environmental reductionism, in setting aside other wider considerations of environmental degradation it implies that environmental issues are largely justifiable by reference to decarbonisation. Jackson suggests that the EU's preoccupation with sustainable growth has seemingly denied any point at which growth can be restricted by the capacity of ecosystems or the finite nature of natural resources.⁴⁷ Arguing that pursuing growth implies a top down managed European economy as reflected in the economic reform strategies of 2000 and 2010,⁴⁸ whereas it has long been claimed that sustainable development must take account of and include bottom up, grassroots participation, described to be 'crucial'⁴⁹ to secure cooperation and ensure the effective management of locally based resources. It took over 20 years of campaigning against the centralised regulation of GM organisms in Europe to secure an acceptance that Member States could adopt opt-out measures restricting or prohibiting the cultivation of GM crops⁵⁰ providing a clear indication of how difficult it is for that grassroots voice to make itself heard.

3 Legal Challenges

A 'hard' Brexit, in which the UK leaves the EU with no formally recast legal relationship and in the absence of any transitional arrangement is most likely. The UK will then attempt to negotiate bilateral trade agreements with both the EU and other countries and in the interim, may continue to operate under the World Trade Organisation (WTO) rules. Sabine warns that under these circumstances the impact on environmental law may be negative.⁵¹ Whilst bilateral trade agreements are likely to contain provisions on the environment which may prevent the reduction of environmental standards, in order to gain a competitive advantage, an early UK bilateral deal with the current US administration may not set any exacting standard, especially on climate change regulation. It is likely that any bilateral agreement with the EU may require the retention of the level environmental playing field that is already in place. However, agreements with other countries such as India and China may stipulate demands that could impact the environment, such as demands to end agricultural subsidiary in the UK farming industry. MacMillan posits that if the UK's trading relationships are

⁴⁶ Communication from the Commission, 'Europe 2020 a Strategy for Smart, Sustainable and Inclusive Growth' COM (2010) 2020 final.

⁴⁷ Jackson, T., *Prosperity without Growth: Economics for a Finite Planet* (2012) 171

⁴⁸ See note 44 and Lisbon Strategy, 'Presidency Conclusion to Lisbon European Council' (23/24 March 2000).

⁴⁹ Baker, S., et al., *The Politics of Sustainable Development: Theory, Policy, and Practice within the European Union* (1997) 22.

⁵⁰ Directive (EU) 2015/412 of the European Parliament and of the Council of 11 March 2015 amending Directive 2001/18/EC as regards the possibility for the Member States to restrict or prohibit the cultivation of genetically modified organisms (GMOs) in their territory.

⁵¹ Sabine, J., 'Is the Swiss Model a Brexit Solution?' on the UK in a Changing Europe website <http://ukandeu.ac.uk/is-the-swiss-model-a-brexit-solution/> accessed 17 April 2018.

conducted under WTO rules, historically there has been a tendency to interpret these rules so as to give primacy to trade over environment.⁵² Whilst dispute settlements within the WTO framework has shown greater consciousness of environmental protection over time, the WTO itself has done little to promote environmental standards⁵³.

Whilst elements of a 'hard' Brexit are speculation, at the time of writing little is known about how the future relationship with the EU will work or what it will look like. This paper in large part has resisted speculating and has attempted to focus on certainties. One known certainty is the legislation that the UK proposes to use for the main transition is the European Union (Withdrawal) Bill 2017-19. The Bill will be responsible for repealing the European Communities Act 1972 and incorporating existing EU law into domestic law. With no precedent to follow, the task of transitioning out of the EU is complex and has wide-ranging implications for the movement of goods and people, citizens' rights and environmental protections and standards. The Department for Environment, Food and Rural Affairs (DEFRA) has confirmed that there are over 1,101 core pieces of directly applicable EU and national implementing legislation identified within the department's remit,⁵⁴ the complexity and its interlinking nature has attracted considerable criticism. This includes but is not exclusive to; the proposed use of Henry VIII powers enabling primary legislation to be amended by secondary legislation,⁵⁵ the potential loss of environmental principles and accountability, and an anticipated governance gap. The Government have confirmed that approximately one third of existing environmental law will be difficult to transfer and will require new legislation or mechanisms for implementation.⁵⁶ One item of legislation that will not be transposed into domestic is law is Article 191(2) TFEU which states that policies on the environment shall be based on the principle that environmental damage should be rectified at source and that the polluter should pay.⁵⁷ These key principles have been given legal effect in EU law but they are not freestanding principles that can be invoked independently but they have provided significant leverage for the CJEU in how it interprets EU environmental legislation.⁵⁸

⁵² MacMillan, F., *WTO and the Environment*, (2001) 165.

⁵³ Neumayer, E., 'The WTO and the Environment: its Past Record is Better than Critics Believe, but the Future Outlook is Bleak' (2004) 4 *Global Environment Policy* 1.

⁵⁴ DEFRA, Supplementary (ECB0016) evidence to the Lords Committee on the European Energy and Environment Sub-Committee, 24 January 2017.

⁵⁵ Markakis, M., 'Legal issues arising from the Brexit referendum: a UK and EU constitutional analysis. (British exit from Europe Union)', (2017) *International Journal of Legal Information* 45 (1) pp.14-23

⁵⁶ Houses of Commons Environmental Audit Committee, *The Future of the Natural Environment after the EU Referendum*, (2016) HC599.

⁵⁷ EU, *Treaty on the Functioning of the European Union*, 2012/C 326/01, Article 191.

⁵⁸ Macrory, R., et al., 'Environmental Principles: Will They Have a Legal Role After Brexit', (2017) *Journal of planning and Environment Law* 9 120.

Precautionary Principle

The formal origin of the precautionary principle can be traced back to Germany in the 1970s with its 'Foresight' Principle.⁵⁹ It is a philosophical approach to risk prevention and good environmental management in taking proactive measures against specific environmental hazards in order to avoid or reduce environmental risks⁶⁰ and has been adopted by numerous sources of international law.⁶¹ Based on the idea that the environment is unowned, the principle creates an obligation forcing those who want to build or develop to prove in law that what they are doing will not damage the environment. The leading case is *Pfizer v. European Commission* [2002]⁶² where the court banned the use of antibiotics as additives in animal foodstuffs on the grounds there was a risk of increased resistance to them in animals and that such resistance could be transmitted to humans through consumption. Pfizer sought to challenge the Regulation on the grounds there had been an unlawful application of the precautionary principle arguing that a scientific assessment of risk was a condition precedent of the application of the precautionary principle and that no proper assessment had been carried out. Alternatively, had a risk assessment been carried out Pfizer would have argued for a much higher standard of proof than had been accepted by the European Commission.

Despite popular support for the principle there are a number of criticisms. Firstly, that the principle is ill-defined and that ambiguous terms such as 'irreversible harm' or 'lack of full scientific certainty' undermine legal certainty and produce inconsistent and unprincipled decisions.⁶³ However, it is argued that the inconsistency is not caused by the principle itself, but by its application.⁶⁴ Following a review of EU cases which invoked the principle, academics suggested that the decision on whether or not to apply the precautionary principle in EU law can be unclear,⁶⁵ but that in comparison with the conventional risk assessment it is no more immune to manipulation than other decision principles. The precautionary principle rather than

⁵⁹ Slaughter, R., 'The foresight principle', (1990) *Futures* 22 8 801-819.

⁶⁰ Dark, S., and Burgin, S., 'An examination of the efficacy of the precautionary principle as a robust environmental planning and management protocol', (2017) *Journal of Environmental Planning and Management* 60 12 2122-2132.

⁶¹ Stevens, M., 'The Precautionary Principle in the International Arena', (2002) *Sustainable Development Law and Policy* 2 (2) 13-15.

⁶² [2002] T-13/99

⁶³ Khoury, A., 'Is it time for an EU Definition of the Precautionary Principle?', (2015) *Kings Law Journal* 21 1 at 133

⁶⁴ Garnett, K., and Parson, D., 'Multi-Case Review of the Application of the Precautionary Principle in European Union Law and Case Law', (2016) *Risk Analysis* 37 3 502-516.

⁶⁵ *Ibid.*

being understood as a precise formula should be considered a flexible principle that helps assess scientific uncertainty.⁶⁶

The second common argument concerns ‘strong’ interpretations of the principle. Critics argue that the principle is anti-scientific and stifles innovation on the basis that it is never possible to eliminate risk altogether and that there is no such thing as a zero-risk activity. An associated fear is that overly precautionary decision-making will discourage investment in technological development.⁶⁷ Proponents counter that the principle is routinely misunderstood by critics to mean ‘excessive’ regulation rather than precautionary; applying the principle does not necessarily mean more stringent or costly regulation as it could be used to ensure better processes of decision-making rather than a particular outcome.⁶⁸ Had the precautionary principle been applied in certain situations, such as to limit the use of specific habitat damaging antifouling agents in paints for ships and boats, environmental harm could have been avoided.⁶⁹ Similarly, following historical studies, some academics have concluded that a more precautionary response was necessary to manage human exposure to substances such as asbestos.⁷⁰

Critics underline that the UK’s approach to implementing the principle has been problematic and at times has only been implemented as a last resort because of public pressure.⁷¹ Tahmaz suggests that the government’s handling of organophosphorus pesticides (OPs) was overly influenced by industry pressure and failed to take a precautionary approach.⁷² OPs were commonly used in sheep dips to control skin parasites during the 1980s when approximately 40 million sheep were treated once or twice a year. Farmers who were exposed to OPs during handling or spraying of the chemicals complained they suffered health problems including headaches, flu-like symptoms, blurred vision, short-term memory loss and confusion. Despite

⁶⁶ Crawford-Brown, D., ‘The precautionary principle in environmental regulations for drinking water’, (2002) *Environmental Science and Policy* 14 4, 379-387.

⁶⁷ O’Riordan, T., and Read, R., ‘The precautionary principle under fire’, (2017) *Environment: Science and Policy for Sustainable Development* 59 5, 4-15.

⁶⁸ Silva, C., and Jenkins-Smith, H., ‘The Precautionary Principle in Context: U.S. and E.U. Scientists’ Prescriptions for Policy in the Face of Uncertainty’, (2007) *Social Science Quarterly* 88 33 at pp640-664

⁶⁹ Nilsson, R., ‘Control of chemicals in Sweden: an example of misuse of the “precautionary principle”’, (2004) *Ecotoxicology and Environmental Safety* 57 2, 107-117.

⁷⁰ Joshi, et al., ‘Asbestos in developing countries: magnitude of risk and its practical implications’, (2004) *International Journal of Occupational Medicine and Environmental Health* 17 (1) 179-185.

⁷¹ Boehmer-Christiansen, S., ‘Britain and the International Panel on climate change: The impacts of scientific advice on global warming part 1: Integrated policy analysis and the global dimension’ (2007) *Environmental Politics* 4 1, 1-18.

⁷² Tahmaz, N, et al. ‘Chronic fatigue and organophosphate pesticides in sheep farming: a retrospective study amongst people reporting to a UK pharmacovigilance scheme’ (2003) *The Annals of Occupational Hygiene* 47 4, 261-267.

pressure from farmers, the government did not invoke the precautionary principle and, therefore did not ban Ops.⁷³ Three government committees advised that there were no proven health risks from low exposure to OPs, the government took the view that banning OPs could lead to the use of other substances that could harm water quality within rivers thereby failing to take the precautionary principle into account.⁷⁴

In contrast, the government's handling of legislating for Genetically Modified (GM) crops displayed a strong precautionary approach and was influenced by public opinion, EU policy, and the scientific community. The government viewed GM crops as a potential new market and with early research showing no hazards was happy to legislate for their use. However, the government's position changed due to public opposition and EU policy which had adopted a stronger precautionary approach.⁷⁵ GM crops generated negative public opinion and in 1998 the EU operated an unofficial moratorium on new approvals of GM products. Concerns included whether GM crops such as plants resistant to insect pests, might escape into wild populations and impact negatively on biodiversity and concerns of the potential impacts on human health. In response the government delayed development of GM food crops until field trials had been completed and formed a Cabinet Committee⁷⁶ on Biotechnology to initiate public debate on genetic modification. The scientific review concluded that there was no evidence for banning GM crops and that approval of products should be considered on a case-by-case basis.⁷⁷ These two contrasting cases show that the UK's approach is based on pragmatism and carefully reflects the circumstances of each case.⁷⁸

Polluter Pays Principle

The polluter pays principle is the commonly accepted practice that those who produce pollution should bear the cost of managing it in order to prevent damage to the environment. This principle has been adopted internationally⁷⁹ with the most recent incarnation in Article 8 of the Draft Global Pact for the Environment.⁸⁰

⁷³ Patterson, A., and Gray, T., 'Unprincipled? The British government's pragmatic approach to the precautionary principle', (2012) *Environmental Politics* 21 3, 432-450.

⁷⁴ Ibid.

⁷⁵ Millstone, E., and Van Zwanenberg, P., 'The Evolution of Food Safety Policy-making Institutions in the UK, EU and Codex Alimentarius' (2003) *Social Policy and Administration* 36 6.

⁷⁶ Zander, J., *The Application of the Precautionary Principle in Practice: Comparative Dimensions*, (2010) 8-18.

⁷⁷ Ibid.

⁷⁸ European Commission, *Science for Environment Policy Future Brief: The precautionary principle: decision-making under uncertainty*, (2017) .

⁷⁹ *Fishermen & Friends of the Sea v. The Minister of Planning, Housing and the Environment (Trinidad and Tobago)* [2017] UKPC 37.

⁸⁰ Le Club des juristes, *Draft Project: Global Pact for The Environment*, (2017 La Sorbonne, Paris).

It is suggested that if Brexit is an opportunity to enhance the UK environmental laws then an approach similar to that of Trinidad and Tobago's permitting system may have its merits post-Brexit. The principle is first referred to in the primary legislative Act.⁸¹ Secondly, the National Environment Policy⁸² invokes the policy directly and requires charges to be applied when applications are made for licences or permits to pollute. Money collected is then used to correct the environmental damage caused by the activity. In *Fishermen & Friends of the Sea v The Minister of Planning, Housing and the Environment (Trinidad and Tobago)* [2017]⁸³ the court was asked to consider whether local regulations, which set a fixed annual permit fee that was based on the total cost to the Minister of issuing the permits were consistent with National Environment Policy. The rationale for the regulations was to spread the cost of pollution onto those who sought to pollute with the proviso they could continue to operate providing they paid their fees. The court found the system to be unlawful and that any system which does not make the greater polluter pay more than the lesser polluters favours the rush to the bottom. The key in this case was that the principle was contained in the primary legislation and therefore enforceable.⁸⁴

The House of Commons has voted against the amendment Clause 67 of the EU Withdrawal Bill; the purpose of this clause was to ensure that the environmental principles discussed would continue to apply post-Brexit. The government has pledged environmental standards will be enhanced and that the TFEU principles are already central to the UK's environmental policy. In order to ensure these principles continue to underpin policy making it has proposed that they are included in a new policy statement.⁸⁵ This has given rise to a number of criticisms. Firstly, the interpretation of the precautionary principle used by the government falls short of what the majority of subject experts would understand it as mandating.⁸⁶ The Secretary of State in oral evidence claimed that the principle required a solid body of evidence before it can be invoked.⁸⁷ This statement implies the policy must always be evidence based, however the purpose of the precautionary principle is for cases where there is insufficient evidence for an evidence-based policy to operate.

⁸¹ Republic of Trinidad and Tobago, *Environmental Management Act 2000*, Act No.3 of 2000.

⁸² Republic of Trinidad and Tobago, *National Environmental Policy*, (2005, September 19).

⁸³ European Commission, *Science for Environment Policy Future Brief: The precautionary principle: decision-making under uncertainty*, (2017).

⁸⁴ Bell, *Environmental Law*, 35.

⁸⁵ Environmental Audit Committee, *Oral evidence: The Governments Environmental Policy*, (2017) HC544.

⁸⁶ Khan, M., 'Polluter Pays Principle: The Cardinal Instrument for Addressing Climate Change', (2015) *Laws* 4 3, 638-653.

⁸⁷ Environmental Audit Committee, *Oral evidence: The Governments Environmental Policy*, (2017) HC544.

Secondly, the protections and legal standing offered by the principles being included in a policy statement will be significantly weakened and will not be a legally binding mandate.⁸⁸ It has been suggested that the principles could be included in a statutory instrument, similar to the embedding of environmental principles as part of the domestic permitting system.⁸⁹

4 Accountability and Governance

Critics caution that Brexit will result in a loss of environmental standards and that seeking to rely exclusively on domestic mechanisms of accountability will expose gaps in governance. EU law imposes a framework of planning and reporting obligations on Member States, requiring them to plan the implementation of their environmental obligations. These plans, including explanations for failures to comply and use of lawful derogations are public documents and are sent to the EU Commission. The nature of environmental obligations means they are set in the future and rarely definitively met, making them an ongoing commitment. Planning for compliance helps to make environmental obligations a current priority for governments and helps to ensure accountability is not cast into the future and it is not necessary to wait for the outcome to be breached and any risk of a breach becomes transparent.⁹⁰ The seriousness with which governments may take these requirements may fall short but these obligations underpin our understanding of whether the government is doing what it said it would and provides accountability.⁹¹

The Government's assertion that judicial review can provide the exclusive mechanism for challenging the application of environmental legislation post-Brexit is misleading.⁹² The House of Lords European Union Committee concluded that this misunderstands both the breadth of the functions performed by EU institutions and limitations of judicial review.⁹³ Critics of the government's plan have argued that judicial review remains a very limited mechanism of accountability and is not suited to the government's proposal for the following reasons. First, judicial review is dependent on priorities of society, and their willingness and capacity to act. Secondly, it is costly and risky, especially given the limited access to the justice system. Third, UK courts do not involve themselves in 'merit' reviews and instead consider the legality of a

⁸⁸ Papworth, N., *Constitutional and Administrative Law*, (2016, 9th Edition, Oxford University Press) 318.

⁸⁹ McNamee, P., Greener UK, *Ensuring the Withdrawal Bill Leads to a Greener UK Parliamentary Briefing* (2017).

⁹⁰ Lee, M., 'Accountability for Environmental Standards after Brexit', (2017) *Environmental Law Review* 19 (2) 89-92.

⁹¹ *Ibid.*

⁹² Douglas-Scott, S., 'Brexit, Article 50 and the Contested British Constitution', (2016) *Modern Law Review* 79 (6) 1019-1040.

⁹³ House of Lords, European Union Committee, *Brexit: Environment and Climate Change*, (2017) HL Paper 109.

decision,⁹⁴ in comparison the CJEU considers the application of the law. Fourthly, as seen in the first *ClientEarth*⁹⁵ case UK courts can be highly respectful of the government, allowing wide discretion on questions of economic or political sensitivity. It is suggested that EU law has consistently rejected attempts to rely on practical, political or economic difficulties to excuse a breach; as seen in *Commission v UK (Bathing Waters)*.⁹⁶ Finally, remedies are discretionary in domestic judicial review.

Environmental protection is dependent on robust governance but existing UK institutions lack the resources, expertise, power and the independence needed to hold central government to account.⁹⁷ Domestic agencies have important roles in enforcing and protecting the environment but lack the independence from central government to hold them to account.⁹⁸ Whilst they can provide specialist expertise and advice they must be subject to external scrutiny. As regulators they cannot both police and regulate their own activities and powers. An example of this is the allowed damaging practices of burning blanket bogs within English Special Areas of Conservation without the appropriate assessment required by the Habitats Directive. The EU Commission is now taking steps that will require UK authorities to address this issue,⁹⁹ failure to do so may result in a referral to the CJEU.¹⁰⁰

Arguably, political accountability is not adequate either. Parliament through its Select Committees can scrutinise government action and introduce new legislation if laws are not enforced or are ineffective, but they do not have the relevant scientific or technical expertise, or the sufficient time or capacity to fill the expected governance gap, nor are they completely independent of the executive.¹⁰¹ Parliaments that are sensitive to short term political needs are not best placed to assess the long-term effects of a failure to implement environmental law.¹⁰² Finally, political accountability is distinct from legal oversight.

⁹⁴ Lee, 'Accountability for Environmental Standards after Brexit', 89-92.

⁹⁵ *R (on the application of ClientEarth) v Secretary of State for the Environment, Food and Rural Affairs* [2015] UKSC 28.

⁹⁶ C56/90 [1993] ECR I-4109.

⁹⁷ House of Lords European Union Committee, *Brexit: environment and climate change*, (2017) HL Paper 109.

⁹⁸ Kohen, M., 'The Case for a kinder, Gentler Brexit', (2017) *European Journal of International Law* 28 (1) 1-11.

⁹⁹ Garnett, M., et al., 'Effects of burning and grazing on carbon sequestration in a Pennine blanket bog, UK' (2016) *Holocene* 10 6, 729-736.

¹⁰⁰ European Commission, *October Infringement Package: main decisions*, (2014) .

¹⁰¹ Kullaa, R., 'The European Parliament and the UK Parliament: A Relationship in Foreign Policy', (2016) *Parliamentary History* 35 1.

¹⁰² Reid, C., 'Brexit and the future of UK environmental law', (2016) *Journal of Energy and Natural Resources Law* 34 4, 407-415.

To further complicate matters, legislative competence on the environment is widely devolved, making it difficult for central government to bring a UK wide perspective to environmental law post-Brexit. In *Miller*¹⁰³ the court found the statutory assurances given by the UK government with regards to legislating on devolved matters without the consent of the devolved governments to be non-justiciable, finding that the purpose of such legislation was to do no more than entrench a constitutional convention suggesting that the conventions are sustained because the consequences for violating them would 'political difficulties' for those involved.¹⁰⁴

Considering the varying degrees of enthusiasm for Brexit across the devolved administrations it is plausible that several pathways may open up. The progress made in Scotland under Part 3 of the Regulatory Reform (Scotland) Act 2014 in reshaping Scots environmental law or the repurposing of Welsh environmental law along the lines of sustainable natural resource management¹⁰⁵ may be evidence of these pathways already existing. One function of EU law was to produce a broadly harmonised UK environmental law but, with that discipline withdrawn, and given the different ambitions of the devolved administrations, academics suggest that a fragmented body of UK environmental law may emerge.

5 Post-Brexit

The imperfect, but adequate independence of the EU Commission and CJEU with respect to scrutiny and enforcement is a result at least in part of the mutual interests of the 28 Member States in supervising each other, and so in part empowering these bodies.¹⁰⁶ Post-Brexit these enforcement functions will be lost. The government has acknowledged that a new public body may be necessary. Lee suggests it will need to be adequately independent, expert and resourced to hold government to account.¹⁰⁷ It should be able to report; publicly and to parliaments, in response to plans and reports received from the executive. The new body should be able to undertake investigations on its own initiative, ensuring a strategic approach to governance is taken.¹⁰⁸ Additionally, the new body will be able to address defined categories of complaints from individuals and non-profit organisations as does the European Commission, without charge or formality. The UKLEA suggest that the new body should have the power to demand remedial action, ranging from fresh plans and reports, to compensatory

¹⁰³ *R (on the application of Miller and another) (Respondents) v Secretary of State for Exiting the European Union (Appellant)* [2017] UKSC 5.

¹⁰⁴ Jennings, I., *The Law and the Constitution*, (1964) 134.

¹⁰⁵ Environment (Wales) Act 2016, s.3.

¹⁰⁶ Nugent, N., 'Is the European Commission Really in Decline?' (2016) *Journal of Common Market Studies* 54 (5) 1199-1215.

¹⁰⁷ Lee, 'Accountability for Environmental Standards after Brexit'.

¹⁰⁸ McKee, M., 'Brexit: a confused concept that threatens public health', (2016) *Journal of Public Health* 38 (1) 3-5.

measures.¹⁰⁹ The power to bring ordinary judicial review actions against government when appropriate would further enhance effectiveness.

Marine Environment

The European Economic Community (EEC) in the 1970s first developed directives and regulations reacting to specific sectorial activities causing problems in the marine environment, such as pollution. Post 2000, EU directives have taken on a more holistic nature, adopting framework directives and addressing global issues such as climate change.¹¹⁰ Since 2008 there have been fewer major proposals by the Commission, instead the focus has been on reviewing existing legislation and where necessary filling gaps in protection while ensuring that the environment can deliver economic benefits.¹¹¹ Subsequently, the approach has been to manage issues affecting the marine environment in a holistic manner, using the ecosystem approach and encouraging Member States to work together to address transboundary issues. There is a plethora of administrative bodies required to implement these governance instruments most notably any maritime state which has the overall aim, as in the UK, of ensuring a vision of 'clean, safe, healthy, biologically diverse and productive seas and oceans'¹¹² requires the appropriate instruments covering all users and uses of the seas. The range of marine uses and users all need to be controlled in order to prevent marine deterioration, hence the amount of legislation.¹¹³

International Agreements

Post-Brexit the UK will continue its role as a signatory to international agreements such as the Regional Sea Convention for the Protection of the Marine Environment of the North-East Atlantic 1992 (OSPAR). OSPAR has played an important role in protecting the UK and wider European marine environment. Directives issued by the EU have been the means to adopting OSPAR's recommendations and agreements. The UK is also a signatory of the United Nations conference on the Law of the Sea (UNCLOS) which grants coastal states certain rights, responsibilities and obligations. The UK will be required to manage and conserve the

¹⁰⁹ UK Environmental Law Association, *Brexit and Environmental Law Enforcement and Political and Accountability Issues*, (2017).

¹¹⁰ Directive 2008/56/EC Marine Strategy Framework Directive [2008] L164/19.

¹¹¹ Voulvoulis, N., et al., 'The EU Water Framework Directive: From great expectations to problems with implementation', (2017) *Science of the Total Environment*, 575 358-366.

¹¹² HM Government, *UK Marine Policy Statement* (2011) available at <https://www.gov.uk/government/publications/uk-marine-policy-statement>

¹¹³ Boyes, J. S., and Elliott, M., 'Marine legislation – The ultimate 'horrendogram': International law, European directives & national implementation', (2014) *Marine Pollution Bulletin* 86 (2) 39-47.

resources in its Exclusive Economic Zone (EEZ), including fisheries sustainably.¹¹⁴ Under UNCLOS and the United Nations Fish Stocks Agreement the UK will also be responsible for cooperating with neighbouring states to sustainably manage shared and trans-boundary fish stocks. However, unlike EU law UNCLOS has no means of enforcement and relies on signatories' voluntary compliance.

EEZ and Fisheries Management

Post-Brexit the UK will be responsible for all aspects of fishing activity and management within its sovereign 200-mile EEZ and will become independent of the EU Common Fisheries Policy (CFP), which means all fishing activity will be subject to UK regulations.¹¹⁵ In addition to the proposed reintegration of EU legislation, a new UK Fisheries Bill is expected in 2018 that will set out the legal framework for controlling access to fisheries and fisheries management. The CFP aims to ensure the sustainability of EU fish stocks and fisheries by promoting international cooperation, creating fair market competition, setting trade policy, and providing funding to support fishers to improve the sustainability of their practices and coastal communities to diversify incomes.¹¹⁶ The CFP provides equal access to all EU fishing fleets to EU waters and as such EU waters are managed as a single EU EEZ from the 12 nautical mile limit. Additionally, it establishes the concept of Relative Stability and total allowable catches as the main regulatory tool for fisheries management.¹¹⁷

The UK fishing industry has argued that the CFP unfairly biases the UK in terms of rights and that Brexit presents the opportunity to rebalance the distribution of fishing opportunities. Analysis shows the extent to which fishing within UK waters favours non-UK fishing interests, providing an insight into the overall significance of the seas around the UK to the EU's fishing economy as a whole.¹¹⁸ In 2014, over two thirds of fish by weight and over half by value landed within the UK EEZ were taken by non-UK boats. Belgium's fishing fleet relied most heavily on access to UK waters with almost half its total landings sourced therein, and the Netherlands, Germany, Denmark and Ireland caught approximately one third or more of their total landings within the UK fishing zone. In contrast, only 14% of the UK catch came from within EU waters.

¹¹⁴ Brexit: fisheries inquiry. Government Response. House of Lords, EU Energy and Environment Sub-committee. [online] <https://www.parliament.uk/documents/lords-committees/eu-energy-environment-subcommittee/Brexit-fisheries/Gvt-Response.pdf>

¹¹⁵ Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11th December 2013 on the Common Fisheries Policy L354/22.

¹¹⁶ Goti-Aralucea, L., et al., 'Overarching sustainability objectives incompatible directions in the Common Fisheries Policy', (2018) *Marine Policy* 91 49-51.

¹¹⁷ Carpenter, G., et al, 'Landing the blame: The influence of EU member states on quota setting', (2016) *Marine Policy* 64 9-15.

¹¹⁸ Napier, I., 'Fish Landings from the UK Exclusive Economic Zone and UK Landings from the EU EEZ', (2017) NAFC Marine Centre, University of the Highlands and Islands, Port Arthur.

Non-UK EU fishing boats therefore landed seven times by weight, and five times by value, from the UK EEZ, than UK boats caught from other areas of the EU EEZ.¹¹⁹

Brexit presents an opportunity to develop better integrated, more flexible marine governance in UK waters in place of the systemic rigidities of the CFP. The concept has undergone a transformation from an antidote to equal access and an assurance that expansion of the EU would not prejudice the status of national fishing interests to a mechanism perceived by the catching sector as perpetuating the injustices of the original allocation of fishing opportunities some 35 years ago. A new system of governance is required that will provide for effective but flexible management within the UK EEZ, with a degree of compatibility with neighbouring regimes; and the scope for meaningful cooperation over present and future management of the wider regional seas. A layered approach starting with a new UK Sea Fisheries Act could replace a range of legislation dating from the 1960s and the common rules of the CFP.

The enactment of a new Fisheries Bill outlining the new legal structures, rights and responsibilities will provide a first step. The more substantive and detailed task is in the framing of a new Sea Fisheries Act that will not only define the mechanisms by which the UK fishing industry will be regulated but also set out a regulatory framework that will govern all fishing activity within the EEZ.¹²⁰ The proposed legislation will have many things to balance, but amongst the most important are; firstly, the allocation of responsibilities for fisheries management between the UK, national administrations and regional or local institutions and the implications for a coherent and consistent system of regulation covering both domestic and foreign fishing activity. Secondly; the provisions for inclusive and participative governance lacking in the CFP and the post-Brexit mechanism for distributing fishing entitlements, involving a choice between staying with output restrictions or opting for a change to effort limitations in the form of days at sea allocations.¹²¹ Finally, and of most importance to this paper is that considerations must be given to the balance of objectives and principles that will drive the UK's approach to fisheries management, including the definition and interplay of economic, social and environmental objectives.¹²²

¹¹⁹ Ibid.

¹²⁰ Paterson, O., *UK Fisheries Policy Post-Brexit uk2020*, (2017) accessed on 4th April 2018 available at: <http://www.uk2020.org.uk/wp-content/uploads/2017/04/UK-2020-Fisheries-Policy-Post-Brexit.pdf>

¹²¹ Ibid.

¹²² Symes, D., and Philipson, J., 'Whatever became of social objectives in fisheries policy?', (2011) *Marine Policy* 95 1 1-5.

Marine Governance

The term marine governance relates to policies, politics, laws and administrations that are for the wide adoption of eight internationally recognised principles.¹²³ These are ecologically sustainable development, integrational equity; the precautionary principle; Conservation of Biological Diversity and ecological integrity; economic valuation of environmental factors; the polluter pays principle; waste minimisation, and public participation.¹²⁴ The resulting marine management has to reconcile several wide-ranging topics: the vertical integration of governance across geopolitical levels, the horizontal integration across many types of stakeholders, the chain of activities leading to pressures and impacts, the risk assessment and response to those impacts, the creation of ecosystem services with a potential to deliver societal benefits and the Ecosystem Approach.¹²⁵ The latter essentially being the ability to maintain, protect and enhance the natural system, its structure, functioning, health and productivity while at the same time deliver the services, goods and benefits required by society.¹²⁶

The UK will no longer be subject to the some of the most important environmental legislation including Birds and Habitats, Bathing Water, Water Framework, and Marine Spatial Planning Directives as well as the CFP. Critics caution that the health of the wider marine environment might degrade should the UK no longer comply with current or future standards.¹²⁷ Key pieces of UK legislation such as the Wildlife and Countryside Act 1981 and the Marine and Coastal Access Act 2009 (MCAA) would still be important as they were passed as primary UK Acts of Parliament. Post-Brexit new legislation will need to be introduced or reintegrated to manage key pressures and activities such as pollution, environmental liability, shipping, invasive species, environmental impact assessments, clean water for bathing and drinking, sewage and nitrates all of which are primarily managed through EU regulations at present. Critics of EU environmental legislation argue that they are often vague in their commitments, implementation can be disjointed and fail to meet the holistic aspirations of the legislation.¹²⁸ A review of European sourced legislation tasked with identifying if there is any unnecessary

¹²³ Hughes, T., 'The Future of Marine Governance', (2011) *Solutions Journal* 2 (1) pp18-20

¹²⁴ EDOWA. Overview of Environmental Law in Western Australia, (2011) Environmental Defenders Office of Western Australia, Perth, Fact Sheet 1 11.

¹²⁵ Elliott, M., 'Integrated marine science and management: wading through the morass', (2014) *Marine Pollution Bulletin* 86 1-4.

¹²⁶ Atkins, J.P., et al., 'Management of the marine environment: integrating ecosystem services and societal benefits with the DPSIR framework in a system approach', (2011) *Marine Pollution Bulletin* 62 2 215-226.

¹²⁷ Kyriazi, Z., et al., 'Coexistence dilemmas in European marine spatial planning practices. The case of marine renewables and marine protected areas', (2016) *Energy Policy* 97 391.

¹²⁸ Moss, B., 'The water framework directive: total environment or political compromise?' (2008) *Science Total Environment* 200 32-41.

regulatory burden, concluded there was room for improvement and recommended that any future legislation should be implemented so as not to go beyond the minimum requirements set by a directive.¹²⁹ However, without this legislation, all the discussed components and activities would need managing and regulating and so a maritime state would still require the elements to cover land and vessel pollution, dredging and aggregate extraction, fisheries and mineral exploitation etc. The cross-boundary nature of marine problems will always require cross boundary solutions.

Critics argue that post-Brexit the UK will be free from 'spirit crushing' environmental protection.¹³⁰ Much of the existing legislation will stay, but with much less rigidity.¹³¹ At a national level, current sea space management has often led to overregulation and complexity which has subsequently led to demand in the industry for governments to minimise the amount of legislation to be tackled before development can occur.¹³² The expanse of marine legislation has led to what many have described as 'uncertain governance'. Nations have struggled to keep pace with the amount of EU legislation and have required increasingly competent bodies and administrative functions to enact it.¹³³ Critics caution against the UK pursuing a purely individual approach to protecting the marine environment, some nations who border regional seas have become frustrated that purely national measures cannot influence the activities of other countries who also border the same marine area. Regional cooperation poses many challenges for the EU Marine Strategy Framework Directive (MSFD) implementation, including obtaining support for regional outcomes by non-EU nations who are not required to ratify the MSFD.¹³⁴ With that noted, it is possible that should the UK seek a purely individual approach to protecting the marine environment it may be frustrated at the lack of cooperation from its neighbours? Most notably the EU?

Marine Protected Areas (MPA)

MPAs are protected areas of seas, oceans and estuaries. MPAs restrict human activity for the purposes of conservation, normally to protect marine resources that are of significant

¹²⁹ Davidson, N., Davidson Review – Implementation of EU Legislation. Final Report, (2006).

¹³⁰ Nelson, A., 'Brexit would free UK from 'spirit-crushing' green directives, says minister', *The Guardian* 30 May 2016.

¹³¹ Salomon, M., 'The European Commission proposal for a marine strategy: lacking substance', (2006) *Marine Pollution Bulletin* 52 11 1328-1329.

¹³² European Commission, 2013a. Memo – Questions and Answers on proposed Directive on Maritime Spatial Planning and Integrated Coastal Management. Brussels. 13 March 2013.

¹³³ Boyes, S.J., and Elliott, M., 'The excessive complexity of national marine management systems – has this decreased in England since the introduction of the Marine and Coastal Access Act 2009?', (2014) *Marine Policy* 51 at 57-65.

¹³⁴ Freire-Gibb, L. et al, 'Governance strengths and weaknesses to implement the marine strategy framework directive in European waters' (2014) *Marine Policy* 44 172-178.

importance to the wider ecosystem. It is possible that post-Brexit the UK's approach to MPAs may give a clear indication as to whether Brexit has provided the platform for an enhanced environmentally focused approach. Academics suggest that the UK may take one of two courses of action with regards to European Marine Sites (EMS). Firstly, de-designate them, ending the sites' status as protected areas, or alternatively re-designate them but with EMS occupying over 12% of the UK's seas, the loss of these sites may be catastrophic for the UK's MPA network. These MPAs are designated in areas of the most important habitats and species for European biodiversity and wildlife, which are also important to the UK. Given the severity and their importance, their protection should be given the highest priority.

In addition to the European Marine Sites, domestically under the Marine and Coastal Access Act 2013 the UK has designated 50 Marine Conservation Zones (MCZ) to protect nationally important species and habitats not protected by EMS. However, the laws governing MCZs are weaker than those that govern the EMS. The regulations protecting EMS from damaging activities include that developers, fishers and heavy industries need to show their activities will not have adverse effects on the sites before being allowed to proceed are more restrictive than those for MCZs. If EMS should be re-designated to MCZs then they will have weaker protections which would be considered detrimental to the future of the sites. Instead, post-Brexit the UK could, in addition to keeping the EMS enhance the legal protections for MCZ making them equivalent to the legal protections currently afford to EMS.¹³⁵ In addition to the biodiversity and wildlife that would be negatively affected by a change of the MPAs stakeholders would also be impacted. As a result of the revised approach to fisheries management in EMSs, over 40 domestic laws have been created, restricting the trawling and dredging of large number of coastal EMSs.¹³⁶ Such measures have been controversial, and some commercial stakeholders have called for these measures to be repealed post-Brexit under the guise of excessive legislation. If these measures are repealed the work and time invested by regulators, fishers, environmentalists and central government since 2012 could be lost along with the progress made for UK marine conservation.

Conclusion

When concluding this paper, it should be remembered that Brexit is an ever-evolving process. Does Brexit provide the UK with an opportunity to adopt a new generation of more effective environmental legislation? The answer to this depends on a number of factors.

¹³⁵ Boyes, J. S., and Elliott, M., 'Marine legislation', 39-47.

¹³⁶ Over 45 sites; approximately 6000 km² of UK seas.

First. The large amount of EU environmental legislation to be reintegrated into domestic legislation is vast, complex and designed to be part of a system, but the argument that it is excessive remains elusive. Careful consideration needs to be given to how these will be transposed; if not done correctly the UK risks either reducing its protections or creating ineffective legislation. Existing domestic legislation will continue to apply as will other forms of secondary legislation, which limits the possibility of the UK's environmental protections regressing initially. However, environmental principles transposed by non-legally binding policy statements risks reducing the effectiveness of environmental legislation.

Second. Any law without the means of enforcement is largely symbolic and warnings of a governance gap opening post-Brexit should not be ignored. Domestic mechanisms have been established as being inadequate for holding the government to account on environmental matters. Post-Brexit enforcement will either require a significant restructuring of existing agencies or a new enforcement body that can hold central government to account but it is unlikely that either option will be capable of matching the effectiveness of the EU Commission and CJEU. Further complications lie in the power sharing agreements with devolved governments and administrations of the UK, the risk of Scotland or Wales wanting to further improve (as they have shown willing) on environmental protections poses the possibility of a disjointed approach within the UK. However, pressure from the administrations may encourage central government to increase its environmental ambitions.

The marine environment is a hotly contested area of Brexit. Marine issues require cross boundary solutions. It is for this reason why it is unlikely that the UK will pursue a policy of nationalising its fish stocks in its EEZ. It is likely the UK will seek to cooperate with its neighbours not only to fulfil its obligations under UNCLOS as well as to secure a financially beneficial relationship with trading partners. Warnings that the marine environment and biodiversity are at risk if the UK reduces its protections should be taken seriously. It is unlikely that the UK will fail to maintain these to the current level thanks to existing legislation. It is optimistic, but not beyond the realms of possibility that the UK will increase the protections of its MCZs to those of EMSs which would be a positive step in achieving the government's green ambitions.

An optimistic conclusion is that Brexit provides a basis for the UK to adopt a less rigid and more flexible environmentally focused attitude, EU law should not be remembered as an ideal body of environmental law. Ultimately, its underpinnings are economical yet this ignores the economic and social drivers behind the Brexit decision. Brexit was not made with the environment at the forefront of the minds of those who cast their vote. EU legislation is not

without its criticisms, but Brexit does provide a basis for which the UK could take a body of highly regarded environmental laws and build on them. A more realistic conclusion is that it is unlikely that the UK will depart radically from its current position and standards of environmental protections, any changes to environmental legislation are likely to be modest, ultimately the environment has become a key topic on the political spectrum, one which cannot be ignored.